TOPIC 4: SAMII/HR DATA WAREHOUSE REPORT METHODOLGY

The objective of this topic is to present the SAMII/HR Data Warehouse reporting methodology. This topic will cover planning and utilization of the Data Model to construct necessary reports.

At the end of this topic, you will be able to:

- Describe the methodology used to generate reports from the SAM II HR/PAYROLL Data Warehouse
- Use data selection analysis in the planning of reports
- Select the appropriate tables and fields from the Data Warehouse to access the data for SAM II HR Reports
- Make correct tables joins where necessary
- Describe creating, verifying, saving and printing a report
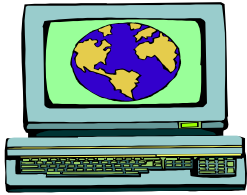
REPORT CREATION METHODOLOGY OVERVIEW
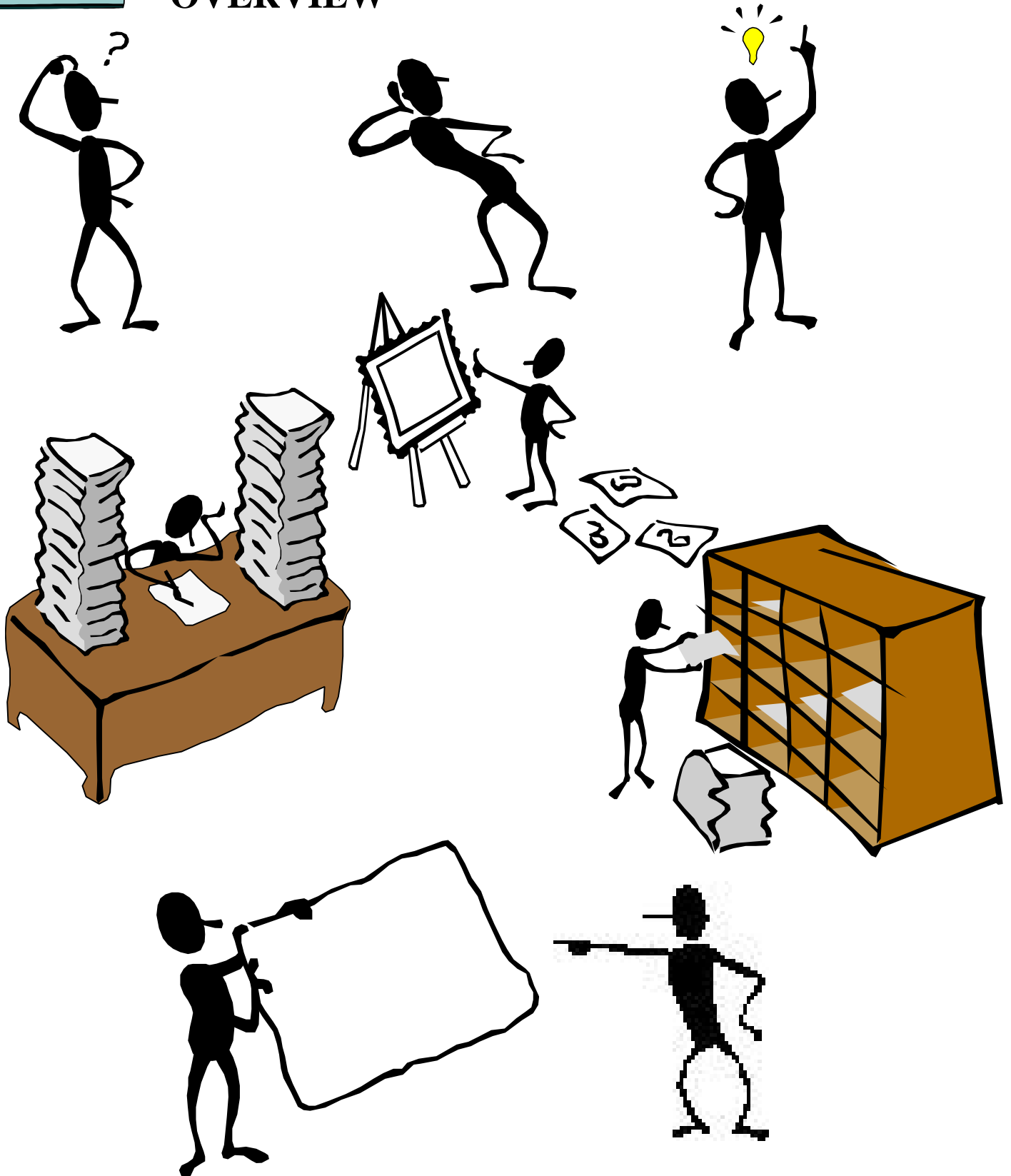
REPORT CREATION METHODOLOGY OVERVIEW

The SAMII HR/PAYROLL Data Warehouse will allow state employees with the required level of security to generate reports from an off-line informational system in a timely manner at a usable level of functionality. To ensure the reports generated are effective, the methodology associated with obtaining correct information is presented. This methodology of report creation follows much of the standard report creation topic progression with certain SAM II specific differences. Understanding these differences is vital.

The general steps are:

❑ Understanding the Goal of the Report

❑ Determining Analysis Parameters

❑ Identifying Table Types and Relationships

❑ Using the Data Model

❑ Generating, Validating, & Distributing Report Output

A walkthrough using the Reporting Methodology will be presented. Finally questions and exercises will strengthen these concepts.

REPORT CREATION METHODOLOGY
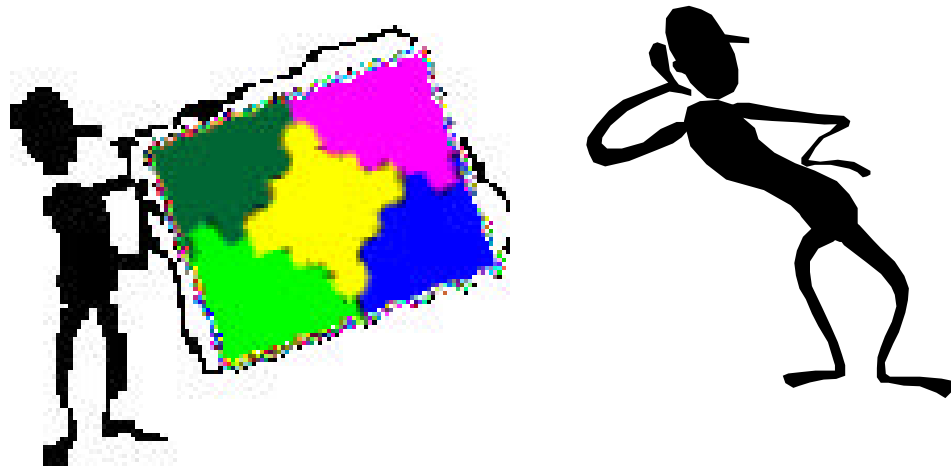
ANALYSIS
Understanding comes by separating the body of work into major components

REPORT CREATION METHODOLOGY
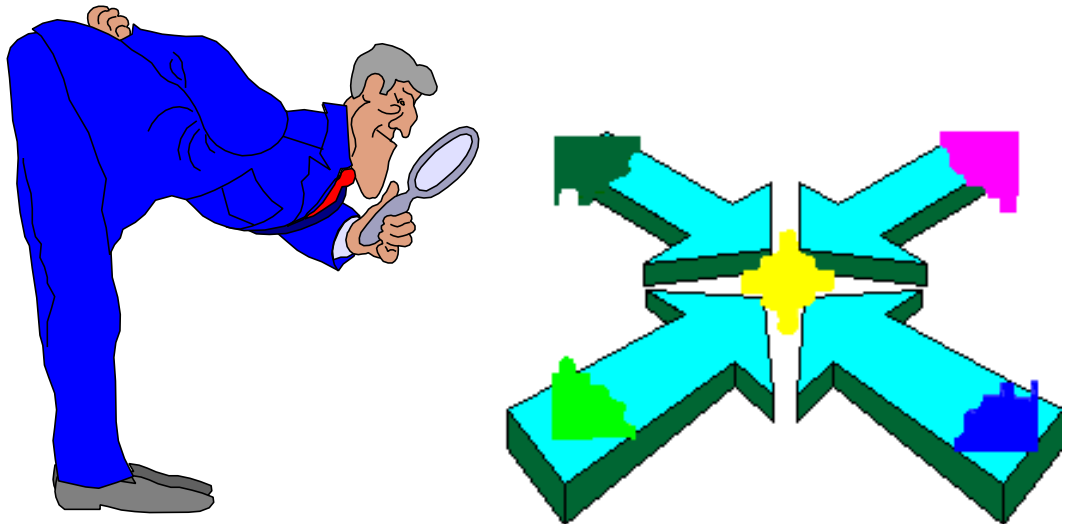
UNDERSTANDING THE GOAL OF THE REPORT

The first thing to ensure is that your understanding of the requirements is accurate and complete. You will then need to ensure your understanding matches the intent of the person requesting the report, if possible. Making certain the question is clearly understood by all will save time and work. The statement of the request could be considered a question that is answered only with the correct data. In order to bring about a common understanding of this question, there are questions you can use to further define it's meaning. Some questions to consider include:

> What is the desired outcome?
> Where do you go to get the data?
> What are the analysis points?

### What is the Desired Outcome?

Dig out as much information as possible. If you have access to the requestor, ensure that the requestor specifies what is desired to as detailed a level as you are comfortable with. Ask them more questions. Identify as exactly as possible what it is that is required. The report that will be produced must contain exactly what items? How will they be arranged. How will they be chosen? (What are the relationships to look for?) Ask for a diagram, if necessary. A clear concise description can be augmented by a diagram, e.g., a printer layout form or previous sample report.

Many times a form is helpful in starting the requestor thinking about all elements involved. A sample Report Design Template is included in the Appendix. The Template provides a structure to use in gathering and organizing the information for the new report.

Potential Sources of Data that Already Exist

Where is the information located that will be used to create the report? Does the data exist somewhere in another format such as the Online system or baseline Reports? Is it in a form that can be used with a minimum of manipulation? Could a downloaded report from the Data Warehouse Front End be summarized, totaled, or reformatted to meet the requirements?

REPORT CREATION METHODOLOGY
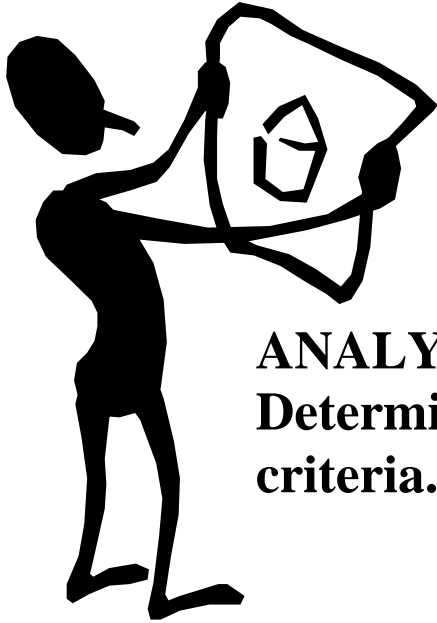
ANALYSIS
Determine the entities, attributes, and criteria.

NOTES

Example:
Provide a list of all currently active employees in my agency with Master degrees.

Entities - Date, Employee, Agency
Attributes - Employment Status, Degree Code
Criteria - "Active", your Agency number, Master's Degree

REPORT CREATION METHODOLOGY

ENTITIES, ATTRIBUTES, AND CRITERIA

An understanding through examination of the question will allow you to determine the entities, attributes, and criteria that make up the request.

Entities

The entities are the controlling objects (nouns) in your question. Consider the question on the facing page. The question is talking about the employees in an agency. Employee is an entity, as well as Agency. Also the word "current" is implicitly including Date in the question, therefore Date is also an entity.

The entities define the scope of the request. The request will be broken down into these points. These points will be examined to determine how each individually will be handled and how each impacts/touches the other(s). The entities will dictate the report's main dependencies.

Attributes

The attributes are those properties that belong to or further describe/define an entity. Consider once again our sample question. An employee can have many attributes. This question selects employees based on their status, and is asking about the employee's degrees. The Employment Status is an attribute of employee. The Master's Degree will be found using a Degree Code.

Criteria

Criteria are the values equated with entities and attributes to limit the question to the data being analyzed. Again the word "current" implicitly modifies date to mean the most recent information and will require the use of today's date in the resulting query. This is a criteria used to select records based on the entity Date. The question also asks for only employees in my Agency. The criteria used to select records based on the entity agency would be the correct Agency Number.

NOTE: In some cases criteria and the entity or attribute they equate to can allow you to take advantage of the special tables and views already prepared in the HR Data Warehouse. In the example here, "my agency" will allow the use of the agency specific view of the tables necessary. Also "current" means a current day view can be used if available. This means as a report designer that no work will have to be done to limit your records by these criteria, because the work was already done by the Data Warehouse.

REPORT CREATION METHODOLOGY
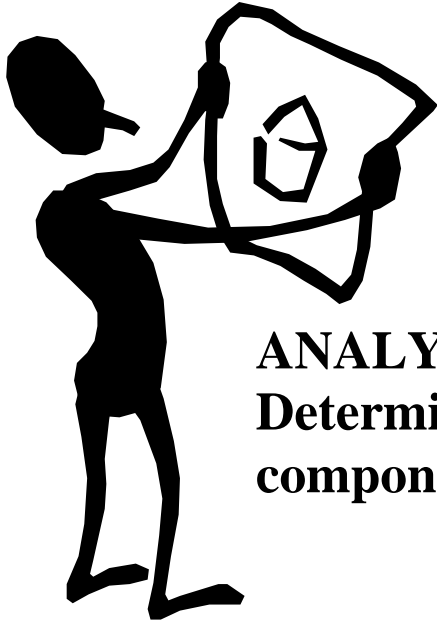
ANALYSIS
Determine what will affect each major component (data element).

NOTES

REPORT CREATION METHODOLOGY

ANALYSIS PARAMETERS

The analysis parameters (attributes) are those elements, relational or structural, that further define the boundaries or additional requirements relating to the question. These include:

> Data Detail Level
> Time Basis of Data
> Functional Areas
> Control Structure
> Derived Fields
> Other

Data Detail Level

Will this be a detail or summary report by agency, or a state-wide summary report? Do you need to determine a representative sample?

Time Basis of Data

Will this be a monthly, quarterly, or annual report? Will this be a report analyzing a "time-slice" or a point in time? Will it involve Chart of Accounts codes? If yes, then is the report for a time period that crosses the Fiscal Year End?

Functional Areas

Which functional areas of the Data Warehouse contain the necessary data for the identified entities? Will I need to select information from more than one functional area to obtain the needed information?

Control Structure

What constraints will be needed? What types of information should be included and where on the report? How should the data be ordered? Is grouping required? Are subtotals required? Do totals and / or counts need to be included?

Derived Fields

Be careful not to always identify derived fields such as amount as entities or attributes by themselves. In some cases an amount may be a derived or calculated field based on other entities or attributes such as Quantity and Price. What computations need to be made?

REPORT CREATION METHODOLOGY

ANALYSIS
Navigate through the Data Model and select the tables and fields

Identify the tables to use, and their types

NOTES

REPORT CREATION METHODOLOGY

USING THE DATA MODEL

Group Entities and Attributes- Identify Tables

Identify the most prominent entities in your question. For example Employee, position, Payroll Run, Payroll Event, Leave Event, Deduction or Benefit Event. In our example about employees' degrees there was only one prominent entity-employee.

What area of analysis would most likely hold the required information?

Take each prominent entity and group it with it's attributes. This prominent entity will be in some functional theme or area in your question such as pay information or leave or demographics. Attempt to locate a single table in the correct functional area that contains all the attribute information needed to answer that part of your question. In this case we could use the SUM_EMPLOYEE table for the entire query. Of course our example could be done using the Data Warehouse Front-End as well.

Continue identifying the remaining tables necessary to retrieve all the data.

Identify Table Types

Can a Summary Table be used, or must a Background, Reference or other Table be used? Can I use a View?

From your Analysis Parameters you can decide what level of detail or granularity your report requires. Then, considering the table types using in the Data Warehouse identify which table you want to use for each prominent entity and it's attributes:

> Background Tables (BKG) are used generally for obtaining detailed information about employees, positions, applicants, and job notices.
> Reference Tables (REF) are used to obtain codes for an effective dated time period.
> Summary Tables (SUM) are used to obtain a data history at the summary level of the common information associated with an area of analysis.
> Snapshot Tables (SNAP) are used to capture detailed information about an employee at a specific point in time - a "snapshot slice".
> Views are used for special "versions" of data such as a point-in-time look (time-sliced) at a table.

REPORT CREATION METHODOLOGY

CREATION

Determine how to join the tables.

NOTES

REPORT CREATION METHODOLOGY

DATA MODEL USAGE

Identify Table Structure Groups

What are the relationships that must be dealt with? Which key fields will need to be used? What types of joins do I use to connect the decided upon data - tables, fields, and constraints? By this point you are close to making these determinations.

Explore the tables needed, and identify the table grouping they belong to:

> Extract Tables
> Background Tables
> Reference Tables
> Snapshot Tables
> Chart of Account Tables
> Tables containing Chart of Accounts Codes
> Effective Dated Normalized Tables
> Non-Effective Dated Tables
> Change-Driven Summary Tables
> Event-Driven Summary Tables
> Log Tables
> Legacy Tables
> Tables containing Legacy Codes
> Special Views

By identifying their group, you can more easily construct the join structure and logic needed to join each table to other tables.

Take the tables in pairs. Compare the two tables. Look at their table types and the characteristics of each. Examine the keys, the logical chronological and functional control structure behind the table. Design the join and accompanying logic for each pair.

Direct joins can be established among de-normalized tables because of the effective dated fields. Normalized tables must have additional effective-dated logic used in order to establish meaningful joins with them. Do the types of joins required by the data types support getting the correct answer to the original question - the request?

REPORT CREATION METHODOLOGY

CREATION
Determine how to constrain the data in your query/result record set.

NOTES

REPORT CREATION METHODOLOGY

DATA MODEL USAGE

Applying Criteria

What data selection rules should be used to filter the data? What special processing should occur?

Consider the criteria in the question. Build selection limitation equations to narrow your data to arrive at the requested criteria. Be very careful that your results are accurate and match what you wanted from the query.

Will my time configuration omit any necessary data?
Incorrect Information - Will it select the appropriate data?
Selecting Date Ranges - What must be done to get the correct data range?
Data Output Size - Will it return too many records (Big Data- Constraints not tight enough) or too few records (Too Tight)?

Logically Deleted Records

The user will determine whether logically deleted records should be included in a report. This will depend on the nature of the report being produced. For example, a list of 'valid' title records should probably not include logically deleted title records.

Logically deleted records are denoted by setting the value of the DELETE_FL field to 'D'. To select all records which are not logically deleted, you should select all records where the DELETE_FL field has a value of ' ' (space).

Active employees

A constraint on the active status of employees is one that should be used as frequently as necessary, depending upon the nature of the report. This will ensure the scope of the report is limited to those employees currently active.

Deceased persons

The problem of deceased persons is one that will impact reporting results. Because pay for a recently deceased person (in the current or previous pay period) will not be generated or paid until the end of the next lag pay cycle, this person will be kept in an interim inactive status until their payoff can be accomplished. The inclusion of a constraint for deceased might be appropriate for certain reports.

REPORT CREATION METHODOLOGY
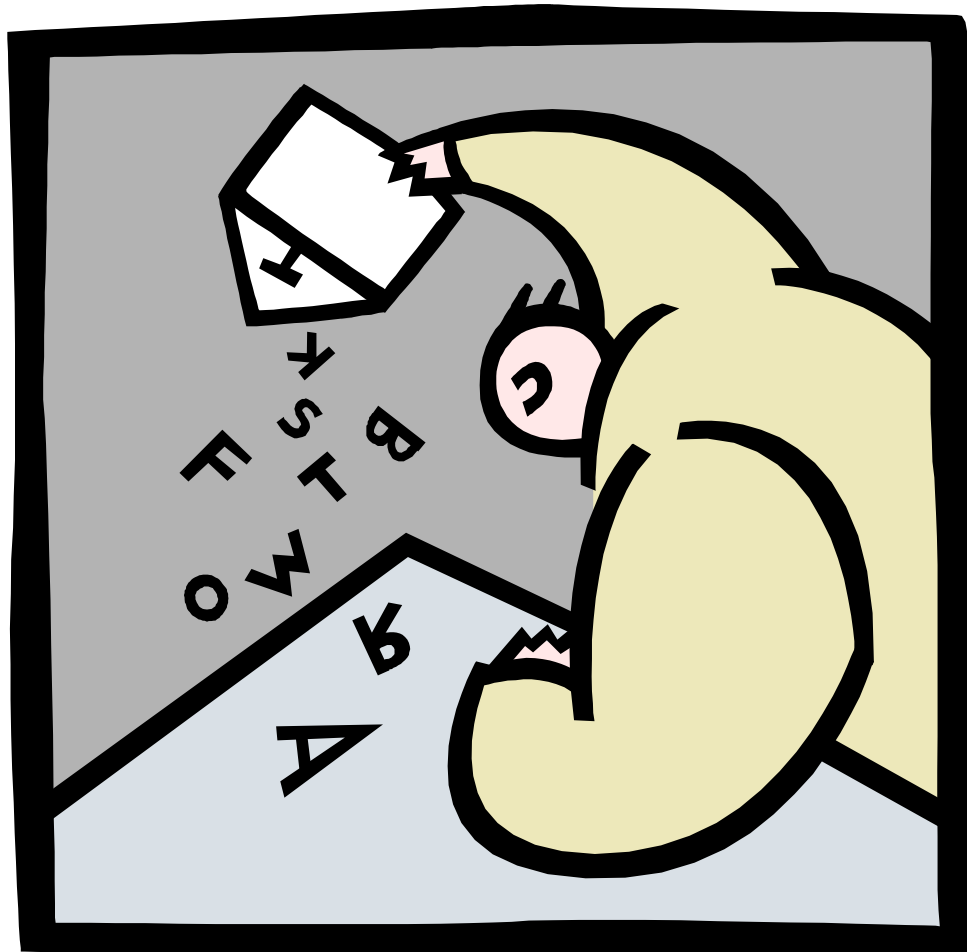
GENERATION
Creating the report.

NOTES

REPORT CREATION METHODOLOGY

REPORT CREATION

Is this report to be scheduled?

If this report is constructed to run on a regularly scheduled basis, avoid procedures in your report design and construction that would involve manual intervention. Take the time to develop parameter based construction so the report can be ran with the simplest set-up. Develop procedures for anything special about this report.

Determine size of returned data set

How much data will this query return in the result set? If the returned data is too large, this may impact your design, choice of tool, or output and distribution methods. Consider using electronic distribution whenever possible.

Choose Tool

If you have a choice of tools, consider which tool would best handle this report. Consider join complexity, size of data, output requirements, distribution, and necessity for local data storage.

Choose between Linked or Local Tables

In some cases it can be beneficial to use local tables to store data. This may be true if you need to run a report against tables that refresh daily. You need to capture the data on the analysis date, because it will refresh and not be available past the analysis date.

Also sometimes joins can become very complex due to the logic necessary to retrieve the correct records. In this case it might be simpler to retrieve the records for one table, and store them in a local table. Then a much simpler join could be made between this resulting table and other warehouse table(s).

Build Queries and Joins in your tool

Construct your queries and joins in your tool.

REPORT CREATION METHODOLOGY
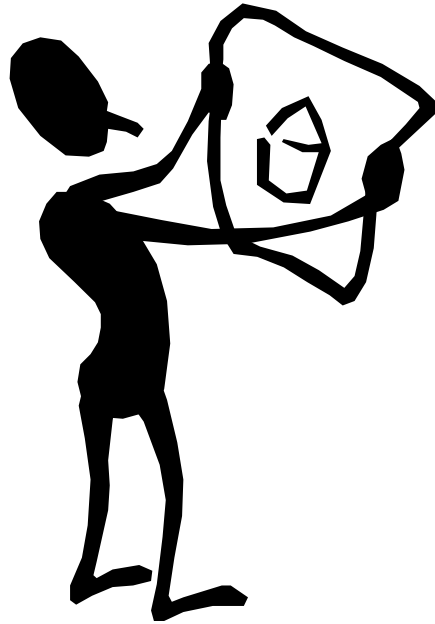
CREATION
Validate your output, and polish the format

NOTES

REPORT CREATION METHODOLOGY

REPORT CREATION

Validation of Output

Is the output information correct? Is the original requestor responsible for determining the validity of the report data or is someone else? Where do I go to find out if the information is correct?

> On-Line Inquiries
> Baseline Reports
> Code Modification

Did it meet the Goal of the Report? Is the output information what was asked for?

Sorting & Layout

Is the report usable? Is it arranged according to the request? Are subtotals and/or control breaks needed? What heading is required? Are run dates and page numbers needed? Should it be portrait or landscape?

Set-Up Distribution & Frequency of Execution

When, where, and to whom does the report need to be distributed or published? At what point in what business process does the report need to be executed (special needs)?

WALKTHROUGH 1

Report to be replaced

```
MARCH BIRTHDAYS


LAST_NAME       FIRST_NAME   MIDDLE_INIT   DATE_OF_BIRTH
-----------     ----------   -----------   --------------
JUST            CLAUDETTE    T             03/01/1935
MANSAGER        DAVID        A             03/02/1950
UTZ             BRIAN        E             03/02/1952
PALMER          WILLIAM      F             03/03/1977
AUSTIN          LARRY        V             03/04/1926
LORD            CORNEL       Y             03/04/1947
SYSKA           DOUGLAS      D             03/04/1949
ABBOTT          CAROLE       I             03/04/1973
IRELAND         CLAUDE       U             03/04/1978
LUECKENOTTE     DEANNA       L             03/05/1928
GLASS           LESSIE       W             03/05/1962
NEW             JUDITH       N             03/06/1979
DUDENHOEFFER    LILLIE       E             03/08/1955
COLE            GLENDA       G             03/08/1973
HUBER           LOGAN        R             03/09/1925
VERNON          CEPHA        R             03/10/1975
TREASURE        SCOTT        H             03/11/1958
DYE             JANE         Z             03/11/1970
BOLLMAN         MELANIE      U             03/12/1935
JENSEN          VIOLA        N             03/14/1950
TURNER          LINDA        O             03/15/1934
ODOM            RAYMOND      K             03/15/1937
ENGLISH         TERESA       V             03/17/1922
WALKER          JODY         M             03/17/1942
CHERRY          JOHN         X             03/17/1944
FARLEY          ROBERT       J             03/18/1921
KAMINSKI        ANDREW       Q             03/18/1929
KINSLOW         GEORGIA      J             03/18/1932
HANCOCK         KIMBERLEY    B             03/18/1939
CROCKETT        STEPHEN      G             03/18/1940
QUINN           DONNA        K             03/18/1964
RIDDLE          KELLIE       C             03/19/1932
MACGREGOR       ROSE         F             03/19/1963
PONDER          PERRY        L             03/19/1967
EDSALL          GERALDINE    F             03/20/1979
YOUNG           DELBERT      S             03/21/1953
```

WALKTHROUGH USING REPORT METHODOLOGY

The following is an example of a report that might be requested. We will use the reporting methodology to produce the requested report.

Requested Report

Produce a Birthday Report listing employees in my agency who have birthdays during the upcoming month. The illustration to the left is representative.

WALKTHROUGH 1

MARCH BIRTHDAYS

```
LAST_NAME       FIRST_NAME    MIDDLE_INIT    DATE_OF_BIRTH
-----------     ----------    -----------    --------------
JUST            CLAUDETTE     T              03/01/1935
MANSAGER        DAVID         A              03/02/1950
UTZ             BRIAN         E              03/02/1952
PALMER          WILLIAM       F              03/03/1977
AUSTIN          LARRY         V              03/04/1926
LORD            CORNEL        Y              03/04/1947
SYSKA           DOUGLAS       D              03/04/1949
ABBOTT          CAROLE        I              03/04/1973
IRELAND         CLAUDE        U              03/04/1978
LUECKENOTTE     DEANNA        L              03/05/1928
GLASS           LESSIE        W              03/05/1962
NEW             JUDITH        N              03/06/1979
DUDENHOEFFER    LILLIE        E              03/08/1955
COLE            GLENDA        G              03/08/1973
HUBER           LOGAN         R              03/09/1925
VERNON          CEPHA         R              03/10/1975
TREASURE        SCOTT         H              03/11/1958
DYE             JANE          Z              03/11/1970
BOLLMAN         MELANIE       U              03/12/1935
JENSEN          VIOLA         N              03/14/1950
TURNER          LINDA         O              03/15/1934
ODOM            RAYMOND       K              03/15/1937
ENGLISH         TERESA        V              03/17/1922
WALKER          JODY          M              03/17/1942
CHERRY          JOHN          X              03/17/1944
FARLEY          ROBERT        J              03/18/1921
KAMINSKI        ANDREW        Q              03/18/1929
KINSLOW         GEORGIA       J              03/18/1932
HANCOCK         KIMBERLEY     B              03/18/1939
CROCKETT        STEPHEN       G              03/18/1940
QUINN           DONNA         K              03/18/1964
RIDDLE          KELLIE        C              03/19/1932
MACGREGOR       ROSE          F              03/19/1963
PONDER          PERRY         L              03/19/1967
EDSALL          GERALDINE     F              03/20/1979
YOUNG           DELBERT       S              03/21/1953
```

UNDERSTAND THE GOAL OF THE REQUESTED REPORT

Further information is necessary to acquire or to show understanding of the request. For example:

The report should be a list of employees.

The report should only contain employees in my agency.

The report should only list active employees.

The report should list each employee's last name, first name, and middle initial.

The report should show each employee's birthday.

The list should be sorted by Day of Month, then by Last Name.

The birthday should appear as 01/01/2000.

The list should only contain birthdays for one month

The information should be arranged in columns as indicated.

The report should be for the upcoming month.

The information is located in the Data Warehouse Employee Data Table Area. This report could be produced using the Front End.

No other assumptions are made.

WALKTHROUGH 1

NOTES

DETERMINE THE ANALYSIS PARAMETERS

Entities, Attributes, & Criteria

The Entities associated with this report are Employee and Date.

The Attributes are:

Employee: Last Name

Employee: First Name

Employee: Middle Name

Employee: Date of Birth

Employee: Agency

Employee: Status

The Critieria that would be used to select the correct records looks like this:

Employee: Agency = *my agency number* (Use Agency View)

Employee: Date of Birth (Month) = Current Month

Employee: Status = Current (ACTIVE or LEAVE OF ABSENCE)

The birth dates should follow the date formatting of: MM/DD/YYYY

WALKTHROUGH 1

SNAP_EMPLOYEE
GHRS_IN_EMPL_ID_NO
APPT_ID
EMP_ID
FISC_YR
AGCY_CD
AGCY_LONG_DESC
ORGN_CD
ORGN_LONG_DESC
PAY_LOC_CD
PAY_LOC_LONG_DESC
PAY_CNTY_CD
EMP_ALT_ID_NO
DOB_DATE
DSBL_CD
DSBL_LONG_DESC
ETHN_CD
ETHN_LONG_DESC
MSTS_CD
GENDER_ID
VETS_CD
FICL_CD
FICL_LONG_DESC
RESD_CNTY_CD
RESD_CNTY_LNG_DES
MAIL_ADDR_LINE_1
MAIL_ADDR_LINE_2
MAIL_CITY_NAME
MAIL_ST_CD
MAIL_ZIP_PREFIX
MAIL_ZIP_SUFFIX
APPT_DATE
PYCL_CD
PYCL_LONG_DESC
PYNO_CD
PYNO_LONG_DESC
ULOC_CD
ULOC_LONG_DESC
UNION_AGCY_SHOP

IDENTIFY THE DATA MODEL TABLE TYPES, RELATIONSHIPS & ELEMENTS

Characteristics

This will be a monthly report by agency. A Point-in-Time Analysis approach should be used. The only Functional/Subject area needed is Employee Information

Since historical data associated with the employee information is required, the data would be found in the Snap Table for the employee. The table needed to acquire the information is the SNAP_EMPLOYEE table. This is the only table necessary since it holds all the information needed for this report. The fields used are:

        SNAP_EMPLOYEE
                EMP_LAST_NAME
                EMP_FIRST_NAME
                EMP_MIDDLE_NAME
                DOB_DATE
                AGCY_CD
                EMPS_CD

No segmentation other the previously mentioned sort is needed. No computations or totals need to be included.

Join Architecture

Only one table is necessary, so there are no joins.

WALKTHROUGH 1

NOTES

IDENTIFY THE APPLICABLE SELECTION CRITERIA

REPORT STRUCTURE

Grouping Criteria

No grouping is required.

Sorting Criteria

The Primary Sort and Secondary Sort is DOB_DATE, LAST_NAME, FIRST_NAME

Totals

No totals are required.

QUERY FORMAT

```
SELECT  FIELDS  GHRS_IN_EMPL_ID_NO,
                EMP_LAST_NAME,
                EMP_FIRST_NAME,
                EMP_MIDDLE-NAME,
                DOB_DATE

FROM    TABLE   SNAP_EMPLOYEE_###
                (WHERE ### = AGENCY NUMBER)

WHERE           EACH RECORD IS THE MOST RECENT RECORD
                FOR EACH EMPLOYEE

AND             MONTH(DOB_DATE) =
                MONTH(CURRENT_DATE + 1 MONTH)
AND             (EMPS_CD = '1' OR EMPS_CD = '3')
                (1 = ACTIVE, 3 = LEAVE OF ABSENCE)

SORT BY         DOB_DATE,
                EMP_LAST_NAME
```

WALKTHROUGH 1

MARCH BIRTHDAYS

LAST_NAME	FIRST_NAME	MIDDLE_INIT	DATE_OF_BIRTH
JUST	CLAUDETTE	T	03/01/1935
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UTZ	BRIAN	E	03/02/1952
PALMER	WILLIAM	F	03/03/1977
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LUECKENOTTE	DEANNA	L	03/05/1928
GLASS	LESSIE	W	03/05/1962
NEW	JUDITH	N	03/06/1979
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TREASURE	SCOTT	H	03/11/1958
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BOLLMAN	MELANIE	U	03/12/1935
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TURNER	LINDA	O	03/15/1934
ODOM	RAYMOND	K	03/15/1937
ENGLISH	TERESA	V	03/17/1922
WALKER	JODY	M	03/17/1942
CHERRY	JOHN	X	03/17/1944
FARLEY	ROBERT	J	03/18/1921
KAMINSKI	ANDREW	Q	03/18/1929
KINSLOW	GEORGIA	J	03/18/1932
HANCOCK	KIMBERLEY	B	03/18/1939
CROCKETT	STEPHEN	G	03/18/1940
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RIDDLE	KELLIE	C	03/19/1932
MACGREGOR	ROSE	F	03/19/1963
PONDER	PERRY	L	03/19/1967
EDSALL	GERALDINE	F	03/20/1979
YOUNG	DELBERT	S	03/21/1953

GENERATE THE REPORT'S AND VERIFY THE RESULTS

The report will look exactly as the Legacy report.

WALKTHROUGH 2

CURRENT REPORT

STATE OF MISSOURI
<AGENCY IDENTIFIER>
EMPLOYEE STATUS REPORT LISTING
For March 2001

RUN DATE   REPORT ###
RUN TIME   Page   1

ORGANIZATION: <IDENTIFIER>

EMPLOYEE LAST NAME	NAME FIRST NAME	MI	STATUS CODE	STATUS DESCRIPTION
ALLEN	TIM	J	1	ACTIVE EMPLOYEE
BUCHANNON	PAT	B	2	INTERIM INACTIVE EMPLOYEE
CLINTON	BILL	B	5	NON-EMERG NATION GUARD CALL UP
JACOBHEIMER	JOHN	H	3	LEAVE OF ABSENCE WITHOUT PAY
MONROE	MARILYN	R	T	INACTIVE EMPLOYEE
POWERS	JOHN	J	1	ACTIVE EMPLOYEE
ROBINSON	WILL	S	1	ACTIVE EMPLOYEE
FARROW	MIA	M	W	WORKER'S COMPENSATION LEAVE

WALKTHROUGH 2 USING REPORT METHODOLOGY

The following is an example of a report that might be requested. We will use the reporting methodology to produce the requested report.

Functional Requirements

This report should list employees by Agency and identify their status..

Current Report Functionality

This report is replacing the "Employee Status By Month", Report ###.

The current report lists employees by Department- Description- Section or some organizational grouping. The report lists the employees sorted by Last Name and displays their current status.

NOTES

WALKTHROUGH 2

Desired Report Layout

```
                        STATE OF MISSOURI
                       <AGENCY IDENTIFIER>
                  EMPLOYEE STATUS REPORT LISTING
                         For March 2001
RUN DATE                                              REPORT ###
RUN TIME                                              Page       1


ORGANIZATION:  <IDENTIFIER>


EMPLOYEE         NAME
LAST             FIRST       MI    STATUS         STATUS
NAME             NAME               CODE          DESCRIPTION
----------------     -----------  -----  ---------------  -------------------------------------------------------------


ALLEN            TIM         J        1        ACTIVE EMPLOYEE
BUCHANNON        PAT         B        2        INTERIM INACTIVE EMPLOYEE
CLINTON          BILL        B        5        NON-EMERG NATION GUARD CALL UP
JACOBHEIMER      JOHN        H        3        LEAVE OF ABSENCE WITHOUT PAY
MONROE           MARILYN     R        T        INACTIVE EMPLOYEE
POWERS           JOHN        J        1        ACTIVE EMPLOYEE
ROBINSON         WILL        S        1        ACTIVE EMPLOYEE
FARROW           MIA         M        W        WORKER'S COMPENSATION LEAVE
```

UNDERSTAND THE GOAL OF THE REQUESTED REPORT

General Description

This report should provide a list of all current employees and their status for my agency. The report should list the employees sorted by Last Name

Report Functionality

This report should be generated upon request.

This report should list employees in my agency only.

This report should list employee's Last Name, First Name, and Middle Initial.

The sort order for the employee listings is Agency, Organization , Last Name, then First Name.

The report should display columns of data including:

> Employee Name
> Agency Code
> Organization Code
> Current Employment Status Code
> Current Employment Status Description

Assumptions and Issues

I have access to only the data for my agency

WALKTHROUGH 2

DETERMINE THE ANALYSIS PARAMETERS

Characteristics

This report provides data on the employee level.

Entities

> Employee
> Organization
> Date

Attributes

Employee: Last Name
Employee: First Name
Employee: Middle Name
Employee: Employment Status Code
Employee: Status Description
Employee: Agency Code
Employee: Organization Code
Date: Report Selection Date

What tables and fields are necessary?

WALKTHROUGH 2

BKG_ASGN

> **GHRS_IN_EMPL_ID_NO**
> APPT_ID
> ASGN_EFF_DATE
> FISC_YR
> HOME_ORGN_CD
> HOME_AGCY_CD
> EMPS_CD

BKG_EMPH

> **GHRS_IN_EMPL_ID_NO**
> EMP_ID
> EMPL_LAST_NM
> EMPL_FIRST_NM
> EMPL_MIDDLE_NM
> EMPL_EFF_DATE

REF_EMPS

> **EMPS_CD**
> **EMPS_EFF_DATE**
> EMPS_LONG_DESC

IDENTIFY THE DATA MODEL TABLE TYPES & ELEMENTS

Characteristics

This report will be generated on an as requested basis. Each table that will be joined will need to meet the same effective dating criteria. The selected tables must contain the information needed for the report and have associated key fields upon which joins can be built.

Join Architecture

BKG_ASSGN
GHRS_IN_EMPL_ID_NO
APPT_ID
ASGN_EFF_DATE
FISC_YR
HOME_ORGN_CD
HOME_AGCY_CD
EMPS_CD

BKG_EMPH
GHRS_IN_EMPL_ID_NO
EMP_ID
EMPL_LAST_NM
EMPL_FIRST_NM
EMPL_MIDDLE_NM
EMPL_EFF_DATE

REF_EMPS
EMPS_CD
EMPS_EFF_DATE
EMPS_LONG_DESC

(Keys are bolded)

WALKTHROUGH 2

GHRS_IN_EMPL_ID_NO	BKG_ASGN	Internal Employee ID
APPT_ID	BKG_ASGN	Appointment ID
ASGN_EFF_DATE	BKG_ASGN	Assignment Effective Date
FISC_YR	BKG_ASGN	Fiscal Year
HOME_ORGN_CD	BKG_ASGN	Home Organization
HOME_AGCY_CD	BKG_ASGN	Home Agency
EMPS_CD	BKG_ASGN	Employment Status Code

GHRS_IN_EMPL_ID_NO	BKG_EMPH	Internal Employee ID
EMP_ID	BKG_EMPH	SSN
EMPL_LAST_NM	BKG_EMPH	Employee Last Name
EMPL_FIRST_NM	BKG_EMPH	Employee First Name
EMPL_MIDDLE_NM	BKG_EMPH	Employee Middle Name
EMPL_EFF_DATE	BKG_EMPH	Employee Effective Date

EMPS_CD	REF_EMPS	Internal Employee ID
EMPS_EFF_DATE	REF_EMPS	Employee ID
EMPS_LONG_DESC	REF_EMPS	Employee Last Name

IDENTIFY THE APPLICABLE SELECTION CRITERIA

Criteria

The criteria that would be used to select the correct records would be:

Date: Effective Date is Less Than or Equal To the Report Selection Date AND Expiration Date is Greater Than or Equal To the Report Selection Date.

Grouping Criteria

No Grouping is required.

Sorting Criteria

The sort order for the report is Agency, Organization, Last Name, First Name.

Totals

No totals are necessary.

WALKTHROUGH 2

GHRS_IN_EMPL_ID_NO	BKG_ASGN	Internal Employee ID
APPT_ID	BKG_ASGN	Appointment ID
ASGN_EFF_DATE	BKG_ASGN	Assignment Effective Date
FISC_YR	BKG_ASGN	Fiscal Year
HOME_ORGN_CD	BKG_ASGN	Home Organization
HOME_AGCY_CD	BKG_ASGN	Home Agency
EMPS_CD	BKG_ASGN	Employment Status Code

GHRS_IN_EMPL_ID_NO	BKG_EMPH	Internal Employee ID
EMP_ID	BKG_EMPH	SSN
EMPL_LAST_NM	BKG_EMPH	Employee Last Name
EMPL_FIRST_NM	BKG_EMPH	Employee First Name
EMPL_MIDDLE_NM	BKG_EMPH	Employee Middle Name
EMPL_EFF_DATE	BKG_EMPH	Employee Effective Date

EMPS_CD	REF_EMPS	Internal Employee ID
EMPS_EFF_DATE	REF_EMPS	Employee ID
EMPS_LONG_DESC	REF_EMPS	Employee Last Name

IDENTIFY THE DATA MODEL TABLE RELATIONSHIPS

Query Format

Join 1

Select Fields: Employee Internal ID field (GHRS_IN_EMPL_ID_NO) on the BKG_ASGN table to Employee Internal ID field (GHRS_IN_EMP_ID_NO) on the BKG_EMPH table.

Date on BKG_ASGN table: Effective Date is Less Than or Equal To the Report Selection Date AND Expiration Date is Greater Than or Equal To the Report Selection Date.

Date on BKG_EMPH table: Effective Date is Less Than or Equal To the Report Selection Date AND Expiration Date is Greater Than or Equal To the Report Selection Date.

Result: Set of All Employees who are currently "active" in the system. Information in this data set includes complete employee name, agency, organization, and status code.

Now, let's do a second join to include the description of the employee status codes.
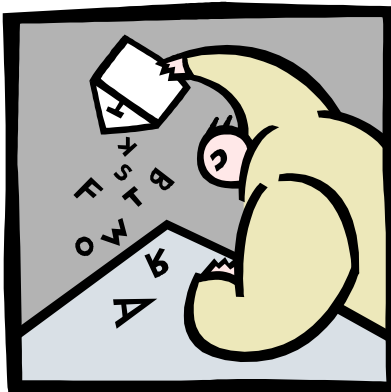
Join2

Select Fields: Employee Status Code ID field (EMPS_CD) on the BKG_ASGN table to Employee Status Code ID field (EMPS_CD) on the REF_EMPS table.

Date on BKG_ASGN table: Effective Date is Less Than or Equal To the Report Selection Date AND Expiration Date is Greater Than or Equal To the Report Selection Date.

Date on REF_EMPS table: Effective Date is :Less Than or Equal To the Report Selection Date AND Expiration Date is Greater Than or Equal To the Report Selection Date.

Result: Your report now contains the information from the first join as well as the long description for the employee status code.

WALKTHROUGH 2

STATE OF MISSOURI
<AGENCY IDENTIFIER>
EMPLOYEE STATUS REPORT LISTING
For March 2001

RUN DATE   REPORT ###
RUN TIME   Page   1

ORGANIZATION: <IDENTIFIER>

EMPLOYEE	NAME				
LAST	FIRST	MI	STATUS	STATUS	
NAME	NAME		CODE	DESCRIPTION	
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ALLEN	TIM	J	1	ACTIVE EMPLOYEE	
BUCHANNON	PAT	B	2	INTERIM INACTIVE EMPLOYEE	
CLINTON	BILL	B	5	NON-EMERG NATION GUARD CALL UP	
JACOBHEIMER	JOHN	H	3	LEAVE OF ABSENCE WITHOUT PAY	
MONROE	MARILYN	R	T	INACTIVE EMPLOYEE	
POWERS	JOHN	J	1	ACTIVE EMPLOYEE	
ROBINSON	WILL	S	1	ACTIVE EMPLOYEE	
FARROW	MIA	M	W	WORKER'S COMPENSATION LEAVE	

GENERATE THE REPORT'S AND VERIFY THE RESULTS

The report will look exactly as the Legacy report.